

Application No.: 10/717,412

Docket No.: MWS-033

REMARKS

Claims 1, 3, 4, 7-17, 19-29, 34, 36-40, 42-45, 47 and 48 have been amended herein. Claims 2, 5, 30-33 and 35 have been canceled without prejudice. Applicants have amended sections of the specification as suggested by the Examiner. No new matter has been added. Applicants submit that all pending claims are in condition for allowance. Applicants respectfully request reconsideration of the outstanding rejections and allowance of all pending claims in view of the reasons set forth below.

I. Summary of Rejections

Claims 24 and 25 have been rejected under 35 U.S.C. § 112, second paragraph.

Claims 1, 3-5, 9-13, 18-19, 23 and 30-31 have been rejected under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent No. 6,877,138 to Fitzpatrick et al. (hereafter "Fitzpatrick").

Claims 47-48 have been rejected under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent Publication No. 2002/0069400 to Miloushev et al. (hereafter "Miloushev").

Claims 2, 8, 24-25 and 34-35 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick in view of U.S. Patent No. 6,407,753 to Budinsky et al. (hereafter "Budinsky").

Claims 7 and 21 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick in view of U.S. Patent No. 6,070,006 to Iriuchijima (hereafter "Iriuchijima").

Claims 6, 16-17 and 20-22 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick in view of U.S. Patent No. 6,195,092 to Dhond (hereafter "Dhond").

Claims 14 and 15 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick in view of U.S. Patent No. 6,300,949 to Shudo et al. (hereafter "Shudo").

Claims 26-29, 32-33 and 36-39 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick.

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Claims 40 and 41 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick in view of U.S. Patent No. 6,738,964 to Zink et al. (hereafter "Zink").

Claims 42-44 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick in view of U.S. Patent No. 5,386,568 to Wold et al. (hereafter "Wold").

Claim 45 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick in view of Wold and in further view of U.S. Patent Publication No. 2003/0132964 to Santori (hereafter "Santori").

Claim 46 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick in view of Wold and in further view of U.S. Patent Publication No. 2003/0132964 to Singh (hereafter "Singh").

II. Amendments to the Specification

Applicants have amended the specification as indicated above to include a description in plain text of the acronyms that have been used in various sections of the specification. Applicants respectfully submit that the amendments address the Examiner's objections. Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the objections to the Specification.

III. Amendments to the Claims

Claims 1, 26, 34, 36, 37, 38, 39, 40 and 42 have been amended to incorporate the subject matter of claim 2.

Claims 1, 3, 4, 7-17, 20, 22-26, 29, 34, 36-40, 42-44, 47 and 48 have been amended to delete the language "step."

Claims 1, 3, 4, 8, 14, 16, 17, 24, 25, 34, 36-40, 42 and 47 have been amended to recite "instructions for."

Claims 11 and 29 have been amended to recite "graphical user interface (GUI)" instead of the acronym "GUI."

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Claims 1, 24, 25, 26, 40, 42 and 47 have been amended to recite "a block diagram."

Claim 34 has been amended to recite "a Unified Modeling Language (UML) diagram."

Claim 36 has been amended to recite "a circuit diagram."

Claim 37 has been amended to recite "a mechanical diagram."

Claim 38 has been amended to recite "a biological diagram."

Claim 39 has been amended to recite "a network diagram."

Claims 1, 3, 4, 7-17, 19-26, 28, 29, 34, 36-40, 42-44, 47 and 48 have further been amended to better claim the invention.

IV. Claim Rejections under 35 U.S.C. § 112

Claims 24 and 25 have been rejected under 35 U.S.C. § 112, second paragraph. Applicants have amended claims 24 and 25 to delete the language "said step of selecting at least one characteristic involves a selection from said intersection," and believe that amended claims 24 and 25 comply with the requirements of 35 U.S.C. § 112, second paragraph. Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the rejection of claims 24 and 25 under U.S.C. § 112.

V. Claim Rejections under 35 U.S.C. § 102(e)

A. Claims 1, 3-5, 9-13, 18-19, 23 and 30-31

Claims 1, 3-5, 9-13, 18-19, 23 and 30-31 have been rejected under 35 U.S.C. § 102(e) as being unpatentable over Fitzpatrick. Applicants respectfully traverse this rejection.

Claim 1 has been amended to incorporate the subject matter of the now cancelled claim 2 and to recite among other things:

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“...instructions for determining an intersection of characteristics common to a plurality of source blocks in a block diagram;
instructions for selecting at least one characteristic in said intersection of characteristics;...”

Fitzpatrick discusses enabling a computer system user to modify attributes of objects displayed by the system and its software applications, (Abstract). Upon selection of a displayed target object, the user may select a “set attributes” option from a pop-up menu. The user is allowed to locate and select separate source and target objects. Upon selection of the source object by the user, the attributes of the source object may be transferred to the target object (Abstract). An exemplary usage of the Fitzpatrick system is illustrated in Figure 6 and involves the duplication of attributes such as font, color, bold, italic, superscript, subscript and emboss to a target. In other words, Fitzpatrick discusses the duplication of appearance characteristics from a source to a target. As Fitzpatrick notes, an object of the Fitzpatrick system may be “to provide a method of modifying attributes, but not inherent content or context, of computer-generated (target) objects,” (Col. 1, lines 35-37).

As correctly identified by the Examiner (in discussing the rejection of claim 25), Fitzpatrick does not disclose determining an intersection of characteristics common to a plurality of source blocks, (Office Action, p. 7, § 9) as now recited by the amended claim 1. Instead, the Examiner relied upon Budinsky in teaching the determining of an intersection of characteristics common to a plurality of source blocks in rejecting claim 25. As claim 1 now includes the “intersection of characteristics” claim element, Applicants also respectfully traverse the Examiner’s finding that Budinsky teaches this claim element.

The Examiner asserts that Budinsky discloses a process of integrating entities, and therefore it would have been obvious to one skill in the art to include characteristics common to both source and destination blocks in Fitzpatrick. However, the Examiner does not indicate where in Budinsky, there is a teaching of “an intersection of characteristics common to said plurality of source blocks.” Applicants respectfully submit that Budinsky is silent about an intersection of characteristics common to the plurality of source blocks.

Budinsky discusses a system and method that may be used to integrate entities using a graphical user interface (GUI), (Abstract). Budinsky’s system may include a

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matching/reconciliation engine which during development time receives as input one or more input definitions, where each input definition describes a type of element comprising an entity, (Col. 4, lines 40-45). The term element may refer to run-time elements and development-time elements, (Col. 4, lines 50-52). The matching/reconciliation engine may generate result definitions for given input definitions, (Col. 4, lines 53-54). The result definitions, as well as the input definitions, may be displayed using a GUI, (Col. 4, lines 64-65).

However, Budinsky does not teach or suggest a block diagram, as recited in claim 1, let alone a selection of multiple blocks from which an intersection of characteristics is determined. Block diagram models are time-based relationships between signals and state variables representative of a dynamic system, (Detailed Description, p. 12, lines 18-19). The section identified by the Examiner on page 7 of the Office Action relates to integrating entities and processing definitions of the entities to be integrated, (Budinsky, Col. 1, lines 58-67) rather than determining common characteristics of multiple blocks in a block diagram. Applicants respectfully submit that the entities of Budinsky are not elements of a block diagram.

Fitzpatrick also does not disclose a block diagram as recited in claim 1. As noted in the specification, a block diagram may depict time-based relationships between signals and state variables representative of a dynamic system, (Detailed Description, p. 12, lines 18-19). There is no mention of block diagrams in Fitzpatrick.

For at least these reasons, Fitzpatrick (and Budinsky) do not disclose or suggest each and every element of claim 1. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claim 1 under U.S.C. § 102(b).

Claims 5 and 30-31 have been canceled, rendering the above rejection of these claims moot.

Claims 3, 4, 9-13, 18-19 and 23 depend from claim 1 and, as such, incorporate each and every element of claim 1.

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Applicants respectfully submit that claims 3, 4, 9-13, 18-19 and 23 are allowable for at least the reasons discussed above for claim 1. Accordingly, Applicants respectfully request the Examiner withdraw the rejection of claims 1, 3, 4, 9-13, 18-19 and 23 under U.S.C. § 102(b).

B. Claims 47-48

Claims 47-48 have been rejected under 35 U.S.C. § 102(e) as being unpatentable over Miloushev. Applicants respectfully traverse this rejection.

Claim 47, upon which claim 48 depends, recites, among other things:

“instructions for determining an intersection of characteristics common to a first source block and a second source block in a block diagram;

instructions for selecting at least one characteristic in said intersection of characteristics, said first source block having said characteristic of a first value, said second source block having said characteristic of a second value.”

Miloushev describes a system of reusable software parts that may be used to design and construct software components, applications and systems by assembly. Miloushev's system may include a dynamic container for software parts which supports integration of dynamically changing sets of parts into statically defined structures of parts, (Abstract).

First, Miloushev does not disclose a block diagram. Block diagram models may include time-based relationships between signals and state variables representative of a dynamic system, (Detailed Description, p. 12, lines 18-19). Applicants respectfully submit that the software system of Miloushev is not a block diagram.

Second, Miloushev does not disclose “an intersection of characteristics common to a first source block and a second source block,” as recited in claim 47. The sections identified by the Examiner on page 6 of the Office Action relate to a software system that includes means of identifying a first and a second property of a software object. The sections further indicate a method for caching and propagating property values to a dynamic set of objects in a software system, the software system having a plurality of objects, each of the objects having a plurality of properties, each the property having a value and an identifier, [0138-

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0145]. As such, Miloushev is silent regarding an intersection of characteristics common to a first source block and a second source block, as recited in claim 47.

Claim 48 depends from claim 47 and, as such, incorporates each and every element of claim 47. Miloushev does not disclose each and every element of claims 47-48.

Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 47-48 under U.S.C. § 102(b).

VI. Claim Rejections under 35 U.S.C. § 103(a)

A. Claims 2, 8, 24-25 and 34-35

Claims 2, 8, 24-25 and 34-35 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick in view of Budinsky. Applicants respectfully traverse this rejection.

Claims 2 and 35 have been canceled, rendering the rejection of these claims moot.

As noted above, the combination of Fitzpatrick in view of Budinsky fails to disclose or suggest the determining of an intersection of characteristics common to a plurality of source blocks (or objects) in a block (or UML) diagram as recited in claims 8, 24 (and 34) respectively.

Furthermore, Budinsky, alone or in combination with Fitzpatrick, does not teach or suggest “an intersection of characteristics common to said source block and said **plurality of destination blocks**,” as recited in claim 25.

Accordingly, Budinsky and Fitzpatrick, alone or in combination, do not teach or suggest each and every element of claims 8, 24-25 and 34.

B. Claims 7 and 21

Claims 7 and 21 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick in view of Iriuchijima. Applicants respectfully traverse this rejection.

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Claims 7 and 21 depend from claim 1 and, as such, incorporate each and every element of claim 1. Fitzpatrick does not teach or suggest "an intersection of characteristics common to a plurality of source blocks in a block diagram," as recited in claim 1. Iriuchijima fails at curing the shortcomings of Fitzpatrick with respect to at least this claim element.

Iriuchijima discusses an object-oriented programming system which performs equivalent conversion on a class network structure, (Abstract). Iriuchijima indicates accepting a range and a mode of equivalent conversion and, based on the range and the mode that have been accepted, performing the equivalent conversion on program data representing the contents of a program containing classes, (Col. 2, lines 56-60).

However, Iriuchijima does not teach or suggest a block diagram, and does not teach or suggest "an intersection of characteristics common to a plurality of source blocks in a block diagram," as recited in claim 1. The sections identified by the Examiner refer to an inheritance relationship that prevents the user from understanding all the attributes and operations of the child class, (Col. 2, lines 36-42). Iriuchijima is silent about an intersection of characteristics common to a plurality of source blocks in a block diagram.

As such, Iriuchijima and Fitzpatrick, alone or in combination, do not teach or suggest each and every element of claim 1. As mentioned above, claims 7 and 21 depend from claim 1. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 7 and 21 under U.S.C. § 103(a).

C. Claims 6, 16-17 and 20-22

Claims 6, 16-17 and 20-22 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick in view of Dhond. Applicants respectfully traverse this rejection.

Claims 6, 16-17 and 20-22 depend from claim 1 and, as such, incorporate each and every element of claim 1. Fitzpatrick does not teach or suggest "an intersection of characteristics common to a plurality of source blocks in a block diagram," as required by

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claim 1. Dhond fails at curing the shortcomings of Fitzpatrick with respect to at least these claim elements.

Dhond discusses a log graphics presentation editor software utility method and a system for creating and editing multi-well log computer graphics presentations, (Abstract). Dhond indicates that the user can edit and archive attribute values of the graphical objects; change the attributes of individual graphical objects displayed in the log graphics presentation; selectively update the attributes of associated graphical objects; automatically apply the changed attribute values to all the selected graphical objects within the presentation editor display; and archive the graphical objects and their attributes to create new log graphic presentations or to add to other log graphic presentations, (Abstract).

However, Dhond does not teach or suggest a block diagram or "an intersection of characteristics common to a plurality of source blocks in a block diagram," as recited in claim 1. Sections identified by the Examiner discuss copying the user selected attributes from a first graphical object to one or more target graphical objects. Dhond also discusses automatically updating the attributes of a graphical object, (Col. 6, lines 15-32). However, Dhond is silent about an intersection of characteristics common to a plurality of source blocks.

As such, Dhond and Fitzpatrick, alone or in combination, do not teach or suggest each and every element of claim 1. Claims 6, 16-17 and 20-22 depend from claim 1. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 6, 16-17 and 20-22 under U.S.C. § 103(a).

D. Claims 14 and 15

Claims 14 and 15 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick in view of Shudo. Applicants respectfully traverse this rejection.

Claims 14 and 15 depend from claim 1 and, as such, incorporate each and every element of claim 1. Fitzpatrick does not teach or suggest "an intersection of characteristics common to a plurality of source blocks in a block diagram," as recited in claim 1. Shudo fails at curing the shortcomings of Fitzpatrick with respect to at least these claim elements.

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Shudo discusses an information processor which may store and manage objects with attribute information added to the objects, (Col. 1, lines 6-8). Shudo indicates that in the information processor an object may be selected and attribute information of the object may be stored in a storage medium. Then, in response to a command issued for copying the selected attribute information, the attribute information stored in the storage medium is added to another object. Thus, the same attribute information can be added to a different object, (Abstract). In Shudo, a main dictionary may register attribute information and a sub-dictionary may register data for identifying attribute information for a part of the attribute information registered in the main dictionary. Shudo discusses selecting attribute information in a dictionary even if the number of attribute information therein is large, (Abstract).

The Examiner indicates that Shudo indicates storing attributes for further propagating, (Office Action, p. 14, § 12). However, Shudo does not teach or suggest "an intersection of characteristics common to a plurality of source blocks in a block diagram," as recited in claim 1.

As such, Shudo and Fitzpatrick, alone or in combination, do not teach or suggest each and every element of claim 1. As mentioned above, claims 14 and 15 depend from claim 1. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 14 and 15 under U.S.C. § 103(a).

E. Claims 26-29, 32-33 and 36-39

Claims 26-29, 32-33 and 36-39 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick. Applicants respectfully traverse this rejection.

Claims 32 and 33 have been canceled, rendering the above rejection to these claims moot.

Claims 27-29 depend from claim 26 and, as such, incorporate each and every element of claim 26. Amended claim 26 recites "an intersection of characteristics common to a plurality of source blocks in a block diagram." As presented above, Fitzpatrick does not

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teach or suggest this claim element. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 26-29 under U.S.C. § 103(a).

Claims 36, 37, 38 and 39 recite "an intersection of characteristics common to a plurality of source components or source graphical elements." The Examiner, while admitting that none of these diagram types were disclosed in Fitzpatrick, suggests that it would have been obvious to perform the system of Fitzpatrick in these respective environments. However, as noted above and as indicated by the Examiner, Fitzpatrick does not teach or suggest determining an **intersection of characteristics** common to said plurality of source blocks as recited by the above claims.

As such, Fitzpatrick does not teach or suggest each and every element of claims 36-39. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 36-39 under U.S.C. § 103(a).

F. Claims 40 and 41

Claims 40 and 41 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick in view of Zink. Applicants respectfully traverse this rejection.

Claim 41 depends from claim 40 and, as such, incorporates each and every element of claim 40. Claim 40 recites "an intersection of characteristics common to a plurality of source lines." Fitzpatrick does not teach or suggest this claim element. Zink fails at curing the shortcomings of Fitzpatrick with respect to at least this claim element.

Zink discusses a graphical solutions development system using placement of blocks representing hardware/software functionality on a computer screen drawing and connecting the blocks by wires representing data and control flow to create application programs and/or hardware design. The blocks may be instances of development components that include intelligence for optimization within a detected environment, (Abstract).

Applicants respectfully submit that Zink does not teach or suggest "an intersection of characteristics common to a plurality of source lines," as recited in claim 40. The sections identified by the Examiner refer to flow of information from one algorithm to another algorithm. Zink indicates that the flow of information is analogous to analog signal

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processing where the output of one analogue processing circuit (or block) is connected via a wire to the input of the next analogue processing unit, (Figure 9 and corresponding text). However, Zink is silent about "an intersection of characteristics common to a plurality of source lines," as required by claim 40.

As such, Zink and Fitzpatrick, alone or in combination, do not teach or suggest each and every element of claim 40. As mentioned above, claim 41 depends from claim 40. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 40 and 41 under U.S.C. § 103(a).

G. Claims 42-44

Claims 42-44 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick in view of Wold. Applicants respectfully traverse this rejection.

Claims 43-44 depend from claim 42 and, as such, incorporate each and every element of claim 42. Fitzpatrick does not teach or suggest an intersection of characteristics common to a plurality of source blocks in a block diagram," as required by claim 42. Wold fails at curing the shortcomings of Fitzpatrick with respect to at least this claim element.

Wold discusses an apparatus and method that may be used to interconnect a plurality of independent software modules by means of specially configured software objects called "Input" and "Output." The software objects of Wold may be implemented through library functions which include functions for making an Output object, making an Input object, adding actions to Input objects, making connections between the Input and Output objects of various software modules, sending messages from one software module to another, and receiving messages sent by another software module. Wold further indicates that a user can create, destroy, inspect and/or hide connections between software modules, and display data flow between modules, (Abstract).

Wold is silent about "an intersection of characteristics common to a plurality of source blocks," as recited in claim 42.

As such, Wold and Fitzpatrick, alone or in combination, do not teach or suggest each and every element of claim 42. As mentioned above, claims 43-44 depend from claim 42.

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Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claims 42-44 under U.S.C. § 103(a).

H. Claim 45

Claim 45 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitzpatrick in view of Wold and in further view of Santori. Applicants respectfully traverse this rejection.

Claim 45 depends from claim 42 and, as such, incorporates each and every element of claim 42. Wold and Fitzpatrick do not teach or suggest “an intersection of characteristics common to a plurality of source blocks in a block diagram,” as recited in claim 42. Santori fails at curing the shortcomings of Wold and Fitzpatrick with respect to at least this claim element.

Santori discusses a system and method that may be used to perform rapid control prototyping using a plurality of graphical programs that share a single graphical user interface. Santori indicates that a first graphical program may be created that models a product being designed. The first graphical program may be deployed on a target device for execution. Santori further indicates that a second graphical program that performs a measurement function may be created. The target device may be coupled to a physical system. The first graphical program may be executed on the target device to simulate operation of the product. The second graphical program may be executed to measure characteristics of the operation of the physical system and/or characteristics of the operation of the product, (Abstract).

The Examiner indicates that Santori discloses creating a virtual instrumentation system, (Office Action, p. 21, § 16). However, Santori, alone or in combination with Wold and Fitzpatrick does not teach or suggest “an intersection of characteristics common to a plurality of source blocks in a block diagram,” as recited in claim 42. As such, Santori, Wold and Fitzpatrick, alone or in combination, do not teach or suggest each and every element of claim 42. As mentioned above, claim 45 depends from claim 42. Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claim 45 under U.S.C. § 103(a).

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CONCLUSION

In view of the above comments, Applicants believe the pending application is in condition for allowance and urges the Examiner to pass the claims to allowance. Should the Examiner feel that a teleconference would expedite the prosecution of this application, the Examiner is urged to contact the Applicants' attorney at (617) 227-7400.

Please charge any shortage or credit any overpayment of fees to our Deposit Account No. 12-0080, under Order No. MWS-033. In the event that a petition for an extension of time is required to be submitted herewith, and the requisite petition does not accompany this response, the undersigned hereby petitions under 37 C.F.R. § 1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized to be charged to the aforementioned Deposit Account.

Dated: September 17, 2007

Respectfully submitted,

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